REMARKS

Entry of the foregoing and further consideration of the subject application in light of the remarks that follow and consistent with 37 C. F. 1.111 are hereby respectfully requested.

Claims 1 through 23 are pending. Claim 24 has been cancelled. Claim 11 has been amended for clarification, i.e., to recite that the seed crystals are prepared in accordance with Claim 1. Amended Claim 19 now depends upon Claim 8. Amended Claims 20 and 23 now specify that the molecular sieve has a structure selected from the group consisting of LEV, FER, TON, MFS, MFI, or MOR. Support for this amendment is found in several portions of the application and original Claim 8.

Rejection Under 35 U.S.C. § 102

Applicants' Invention

Applicants' invention is directed to the preparation of smaller size particles of crystalline molecular sieve. The smaller size particles of crystalline molecular sieve find particular application in the manufacture of molecular sieves.

The preparation of smaller size particles of crystalline molecular sieve is carried our by: (a) synthesizing crystalline molecular sieve; (b) separating from the synthesis mixture, crystalline molecular sieve comprising particles of a first, larger, particle size in admixture with particles of a second, smaller size and smaller particle sizes; (c) treating the synthesized molecular sieve to separate the larger particles from the smaller particles; and (d) recovering the smaller size particles.

Claims 1 through 10 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,164,551 (Elliott, Jr.). This rejection is specially

traversed, as the invention as defined in Claims 1 through 10, is submitted to be patentable over Elliott, Jr.

In making the rejection, the Action stated:

> Elliott, Jr. discloses a method of making a zeolite in which a zeolite suspension is separated from its mother liquor by filtration, and subsequently washed. See col. 2, lines 10-25. The zeolite product obtained at this part in the process of Elliott, Jr. corresponds to the large particle fraction referred to in the present claims.
>
> The mother liquor and wash water contains finely divided particles of a zeolite. Id. The finely divided zeolite product contained in the mother liquor/wash water corresponds to the smaller particle size referred to in the present claims.
>
> The reference differs from the present claims by failing to disclose that the finely divided portion of zeolite is "suitable for use as seed crystals." However, the finely divided product of Elliott, Jr.
>
> is formed in a manner identical to the instant process. Since, the fine zeolite product of the portion is formed in a manner identical to
>
> the present claims, it is assumed that the fine zeolite of the reference is "suitable for use as seed crystals." See MPEP 2112.

Elliott, Jr. involves the manufacture of Type Y Zeolite using recycled mother liquor containing excess silicate. Elliott, Jr. does not recover molecular sieve particles having small size.

Elliott, Jr. is not concerned with recovering smaller size particles of crystalline molecular sieve. Elliott, Jr. is merely concerned with making zeolite Y using recycled unreacted zeolite starting material.

Elliott, Jr. discloses its zeolite Y manufacturing procedure in Column 2, lines 13-51 and the Figure of Elliott, Jr. A summary of the zeolite Y manufacturing procedure of Elliott, Jr. is set forth below.

A. Synthesize Y zeolite to form a material of finely divided Y zeolite suspended in a mother liquor. (Shown in the Figure and Column 2, lines 15 and 16)

B. Filter the product of step A. during which the Y zeolite product is recovered, washed, and sent to storage. (Shown in the Figure and Column 2, lines 17 and 19)

C. Treat the combined mother liquor and the washwater with aluminum sulfate to precipitate a finely divided silica/alumina hydrogel. (Shown in the Figure and Column 2, lines 25 and 31)

D. Recover the precipitate by filtration, and wash the precipitate to provide a filter cake with the resulting wash water being discarded to the sewer. (Shown in the Figure and Column 2, lines 32 and 41)

E. Use the filter cake, i.e., the final product containing the recovered silicate, as a component of a subsequent zeolite synthesis mixture. (Shown in Column 2, lines 47 to 51)

As shown above, the smaller size zeolite Y particles of Elliott, Jr.'s process which are in the mother liquor and washwater produced by are not even recovered.

The Office Action states the small particle size zeolite produced by the process of Elliott, Jr. are assumed to be suitable for use as seed crystals. However, Elliott, Jr. never recovered any crystals from its mother liquor and washwater. Whatever the crystal size, Elliott, Jr. believed they were of no value.

Applicants wish to further point out that with respect to Claims 8 and 10, Elliott, Jr. does not disclose or suggest any of the molecular sieves set forth in Claims 8 and 10.

It is respectfully submitted that Elliott, Jr. does not disclose or suggest Claims 1-10. Withdrawal of this rejection is respectfully requested.

Claims 11 through 13 and 19 through 23 stand rejected under 35 U.S.C. 102(b) as being anticipated by WO 97/03020 (Verduijn et al.). This rejection is

specially traversed, as the invention as defined in Claims 11 through 13 and 19 through 23, is submitted to be patentable over Verduijn et al.

Claims 11-13 now recite that the small particles used to make the molecular sieve are prepared by the process of Claim 1. Verduijn et al. simply involves making offretite by crystallizing from offretite from a synthesis mixture. Nowhere does Verduijn et al. disclose or suggest the preparation method of Claim 1. With respect to presently amended Claims 19 through 23, these claims do not involve offretite.

It is respectfully submitted that Verduijn et al. does not disclose or suggest Claims 11 through 13 and 19 through 23. Withdrawal of this rejection is respectfully requested.

Applicants respectfully submit that the presently pending claims are in condition for allowance and favorable action thereon is respectfully requested.

Respectfully submitted,

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